The VB/I-70 Superfund Site
Press Kit

Cleaning Up Residential Soils in North Denver
August 2003

The Environmental Protection Agency has been working for three years in partnership with the State of Colorado, other federal and local agencies, and community leaders to protect residents of the Swansea, Elyria, Cole, Clayton, and southwest Globeville neighborhoods from possible lead and arsenic contamination in their yards.

This page includes a short description of the environmental problem we investigated, the risks involved, and our proposed plan for cleaning up the lead and arsenic from neighborhood yards inside the VB/I-70 Superfund Site.

This packet also includes:

- Map
- Quick facts
- Background and summary of EPA work to date
- The proposed cleanup plan fact sheet
- Superfund funding fact sheet
- Contacts and where to go for more information
- General Superfund information

What's the problem?

EPA has been investigating soil in residential yards in the neighborhoods of Cole, Clayton, Swansea/Elyria, and southwest Globeville since 1998. We have been concerned that there might be contamination from heavy metals in the area soils due to historic smelter activity. After an extensive investigation and risk analysis, we found that there are some yards that have high levels of arsenic and lead. The soil in those yards could pose a health risk to residents there.

We discovered along the way that some of this arsenic contamination probably came from lawn care products. These products were applied to the lawns before the products were banned in the 1970's because they were dangerous to people's health. We also discovered that lead from non-soil sources such as paint is likely a concern at many properties.

Who is at risk?

We are confident that there is no immediate health threat remaining in any of the yards that we sampled. We already acted quickly to remove and replace soil at the 48 yards that did have very high levels of contaminants and needed immediate cleanup. Although we sampled 3000 yards, there are still 1000 yards that we could not gain access to. We will attempt to sample these yards when we start the cleanup.

Some yards still have levels of arsenic that are not an immediate threat, but have high enough levels that there may be a risk to long-term residents who have a high amount of contact with the soil. In addition, some children may have a behavioral condition called Soil Pica (eating unusually large quantities of soil). EPA is concerned about these children even where levels of arsenic in soil are relatively low. Lead levels in some yards still may be of concern for children who have a high amount of contact with the soil. EPA believes the preferred cleanup alternative in the Proposed Plan will address these health concerns.

What is EPA's preferred cleanup alternative?

- If the soil in a yard contains lead levels higher than 400 parts per million (ppm), and/or if the soil in a yard contains arsenic levels higher than 70 ppm, we will remove that soil, replace it with new soil, and restore a yard. This will protect most of the residents, adults and children, living in the VB/I-70 site area from health problems associated with lead and arsenic in their yards. The only residents who may remain at risk are children with soil pica behavior and children who are being exposed to lead through sources other than soil such as lead paint.

- EPA believes that removing more soil than described above is not the best way to address the health concerns of soil-pica children. One reason is because soil-pica behavior could be a health problem even where arsenic is at naturally occurring levels. Removing more soil will also not eliminate the risk to children being exposed to lead paint and other non-soil sources. This is why we are proposing to go an extra step to protect these children by introducing a Community Health Program in our cleanup plan. This will help us find these children at risk and tailor a response individually for them.

The Environmental Protection Agency
Timeline Summary of Work and Activities
Vasquez Boulevard and I-70 (VB I70) Superfund Site

Investigating the Problem:

Possible contamination of residential yards in the area of what is now the VB/I-70 site first came to the attention of the U.S. Environmental Protection Agency (USEPA) in 1997 following studies directed by the Colorado Department of Public Health and Environment (CDPHE) at the nearby Globe Smelter. These studies had identified elevated concentrations of arsenic and/or lead in residential yards within Glovebille, also extending into the Elyria and Swansea neighborhoods.

The USEPA Emergency Response Program conducted two removal assessment-sampling programs, known as Phase I and Phase II, at residential properties within the VB/I-70 study area during 1998. The sampling results at 18 properties warranted time critical soil removal based on surface soil concentrations exceeding 450 parts per million (ppm) arsenic or 2,000 ppm lead. To date, EPA has removed and replaced soil at 48 properties because of their high lead and/or arsenic levels.

Based on the Phase I and Phase II results, the USEPA then determined that some residential properties within the VB/I-70 site contained soils with arsenic or lead that were not so high as to meet time critical removal levels, but could present human health concerns over long-term exposures. On this basis, the site was proposed for listing and was added to the National Priorities List (NPL) on July 22, 1999.

A ***Baseline Human Health Risk Assessment*** was then developed, supported by a physico-chemical characterization study, a lead bioavailability study, an arsenic bioavailability study, a residential risk based sampling investigation, and a Phase III field investigation. The Baseline Human Health Risk Assessment was included in a broader ***Remedial Investigation Report,*** and both were released in July 2001.

Understanding the Problem:

Major conclusions from the Remedial Investigation Report indicate:

- Some children living in the site do have elevated levels of lead in their blood, though those levels are not clearly different than those found in children elsewhere.

- Soil is likely not the only contributor of high blood-lead levels in children at the VB/I70 site. Elevated levels of lead in indoor and outdoor paint, for example, were found at 130 of 144 samples taken.

- The main sources of lead and the main sources of arsenic found in area soils are not likely to be from the same source.

- The pattern and chemical footprint of the arsenic found among the residential yards in the site indicate that lawn care products may be at least one source of the arsenic.

- Levels of arsenic in about 3 percent of the properties at the site pose an increased risk of cancer and non-cancer effects to residents who have unusually high contact with soil.

- Theoretical calculations suggest that arsenic in soil at a large number of properties may pose a health risk to children who have soil-pica behavior. Soil-pica behavior is defined by a child who eats an unusually great amount of soil. It is considered to be a rare behavior.

- Ninety-one percent of the properties sampled contain average lead concentrations below EPA's screening national level for lead. The screening level is where EPA generally recommends a site-specific assessment to evaluate potential health risks. Properties below the screening level are not considered by EPA to require further investigation.

Finding a Solution:

Based on the Remedial Investigation, Baseline Human Health Risk Assessment, and the other data collected, EPA produced a ***Feasibility Study*** in November 2001. The purpose of the Feasibility Study is to identify and evaluate a range of cleanup alternatives to address human health concerns associated with potential exposure to contaminated soils and homegrown vegetables in residential yards.

The Feasibility Study develops alternatives that for VB/I-70 are a combination of these options: no action; soil removal; soil treatment; and/or a health education, investigation and response program.

In 2002, EPA issued a ***Proposed Plan*** that compares the alternatives described in the Feasibility Study. The Proposed Plan identifies one alternative as EPA's preferred cleanup alternative. After extensive public comment on the 2002 Proposed Plan, EPA decided to amend its preferred alternative and lower its cleanup levels. In May 2003, EPA issued a new Proposed Plan with a new preferred alternative that reflects the lower cleanup levels. Public comment was received on that Plan through June 2003.

In addition to the above technical work, EPA has encouraged an open dialogue with the Denver Department of Environmental Health, Colorado Department of Public Health & Environment, elected officials, community members, the Agency for Toxic Substances and Disease Registry, and other important stakeholders through various means. We have held monthly working group meetings, evening community forums, briefings, and attended neighborhood association meetings. Our goal is to gather and to share as much information about the site and with the community so that we are able to make the best possible cleanup decision.

Next Steps

Our final decision will be based on how the new preferred alternative in the revised 2003 Proposed Plan meets nine specific criteria including community acceptance. The final decision will be presented in a ***Record of Decision*** that will be issued by fall 2003.

Meanwhile, soil removal will begin in August 2003 at 141 homes that have the highest levels of lead and/or arsenic remaining in the area. The remainder of the homes that need a cleanup will be addressed beginning next year. The project could be completed in three to five years, cost $31 million, and affect approximately 850 homes.

Neighborhood Soil Cleanup Project
Vasquez Boulevard and Interstate 70 (VB/I-70)
Superfund Site

Contact Sheet

The United States Environmental Protection Agency (EPA) is testing and cleaning up residential soils in the following northeast Denver neighborhoods: Cole, Clayton, Swansea, Elyria, southwest Globeville, and a section of Curtis Park. This effort is known as the Interstate 70/Vasquez Boulevard (VB/I70) Superfund project. More than 850 residences have been identified so far for the cleanup program that is focusing on arsenic and lead in area yards. This summer, EPA is removing soil at some of those yards that have the highest levels of lead and arsenic and replacing them with new soil. After the soil is replaced, EPA is working with the homeowner to restore the landscape features of that yard. EPA is also continuing to sample yards for lead and arsenic if they have not yet been tested. This cleanup project is expected to take a number of years to complete.

If you have any questions about the VB/I-70 neighborhood soil cleanup project, please feel free to contact the following EPA representatives at any time:

Jennifer Chergo
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Region VIII office
999 18th St., Ste. 300
Denver, CO 80202
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courtney.patricia@epa.gov

You may find additional information about the VB/I-70 project at the following locations:

Cross Community Coalition
2332 East 46th Avenue

Ford Warren Library
2835 High Street

Valdez-Perry Library
4690 Vine Street

EPA Records Center
999 18th Street, 3rd Floor, South Tower

Or visit our website at:
http://www.epa.gov/region08/superfund/sites/co/vbi70.html